Desktop Transition Team Report

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Chair SED IT Council

Co-Chair ITIRT

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This presentation will be available at

http://cisto.gsfc.nasa.gov/desktop.html

SED ITIRT

- Information Technology Infrastructure Review Team
- Originally constituted by John Dalton to review IT infrastructure (email, desktops, web servers, etc) in anticipation of changes in IT management at GSFC
- Members
  - 606, Phil Webster, Nancy Laubenthal, co-chairs
  - 603, Mike McMichen
  - 600 - 606, Nancy Palm, Jeff Simpson, George Rumney
  - 610, Jack Richards, Rosa Kao, Georgiann Batluck, Gi-Kong Kim
  - 660, Curtis Odell, Phil Newman
  - 670, Mike Horn, Tom Vollmer
  - 690, Frank Ottens, Judy Johnson
- We welcome your input, send email to
  - 600itirt-feedback@lists.nasa.gov

Overview of SED Requirements

- Flexible robust systems administration
  - Application specific knowledge is often required
  - Systems are off-site on field campaigns and missions
  - Software development often requires system administration privileges
- Wide variety of systems are used
  - “Latest and greatest” needed for scientific research
  - Light weight needed for travelers
  - Missions and field campaigns require unique hardware
  - Laboratory systems often control experimental apparatus
- Wide variety of discipline specific software
  - Specialized commercial packages (MatLab, IMSL, IDL, etc)
  - Software developed with collaborators
  - Locally developed software
  - Frequent changes in software
- Costs, costs, costs
  - Many Code 600 scientists are dependant on grant funding
  - Variable funding profiles due to grant cycles
  - Reuse of systems as they age
- Routine office automation needs

Take Away Messages

- Big changes are coming in the way IT is managed at NASA and GSFC.
- GSFC and Code 600 are establishing mechanisms to ensure that *our* IT requirements will be met.
- There are limitations with the current ODIN offerings (e.g. software, specialized systems administration support).

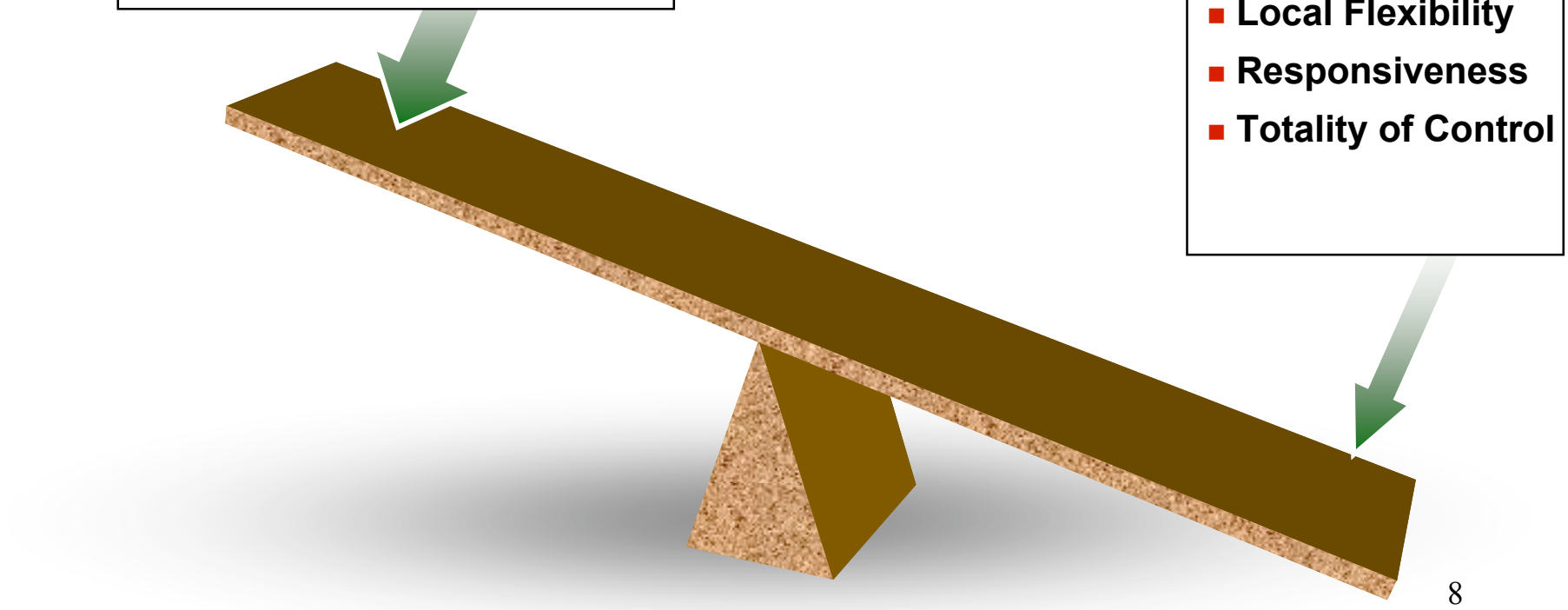
Emerging IT Governance at GSFC

- This is a work in progress
- Federated model - shared responsibility between central authority (CIO) and local
- Information Management Council (IMC)
  - *"The GSFC Information Management Council serves as GSFC's senior decision making body for Information Management strategic direction and planning. The Council provides systematized and integrated strategic direction and planning to all GSFC organizations."*
  - Chaired by GSFC Deputy Director
  - Laurie Leshin - SED Member
  - Peter Hildebrand - Senior Scientist, Information Systems
- CIO Technical Advisory Committee (CIOTAC)
  - *"The CIOTAC shall serve as the principal advisory committee to the Chief Information Officer on all IT management matters."*
  - Co-chaired by Deputy CIO and SED Deputy Director (Mitch Brown)
  - Phil Webster - SED representative
- SED IT Council
  - Advise SED management in all IT management matters
  - Oversight of implementation of GSFC IT policies and directives
  - Phil Webster - Chair
  - Each Division will be represented
- Division IT Councils
  - Where the work will actually be done

NASA CIO Guidance

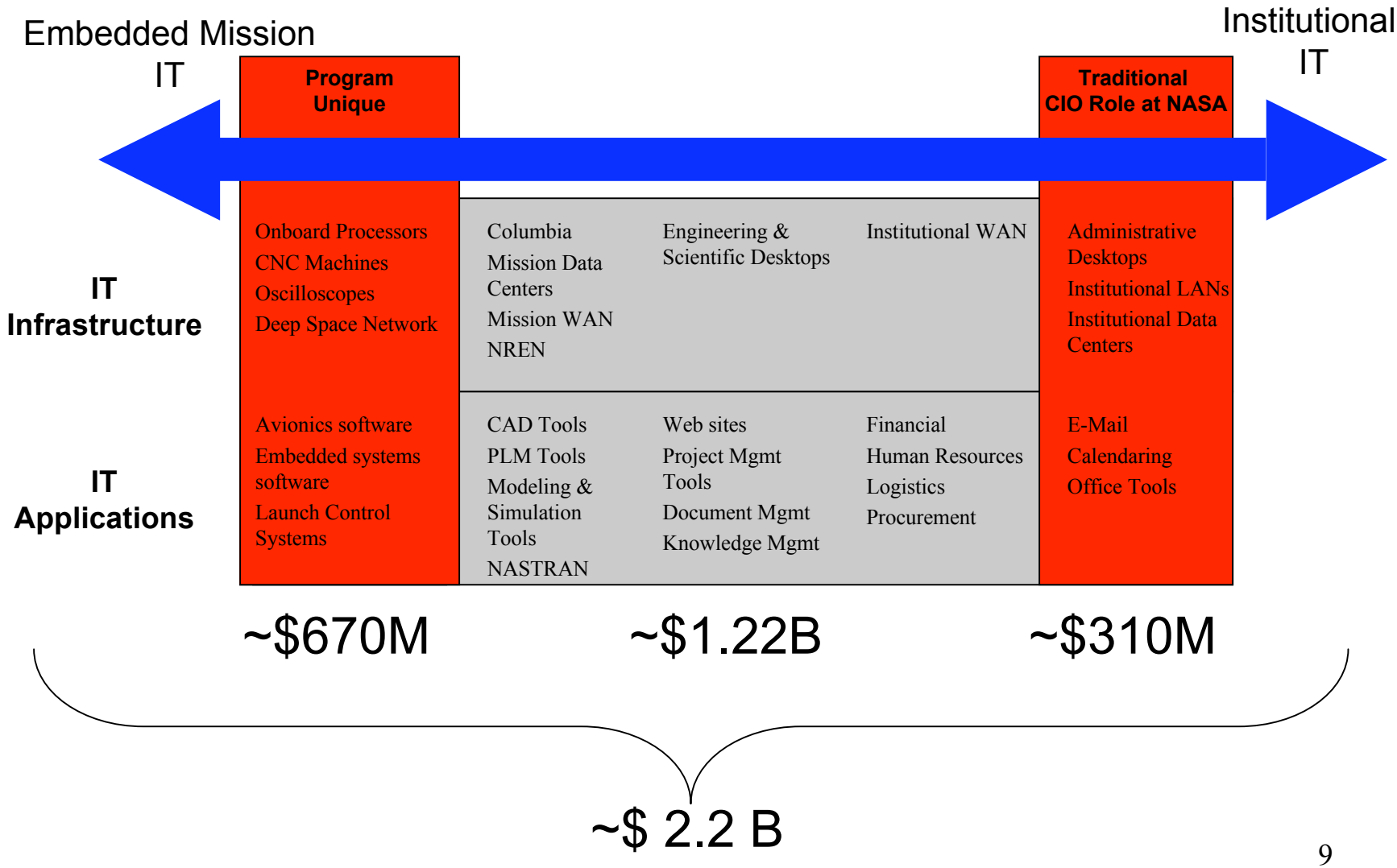
Values That Have Driven NASA IT Decision Making

- **Efficiency**
- **Integration**
- **Security**
- **Standardization**



- **Local Flexibility**
- **Responsiveness**
- **Totality of Control**

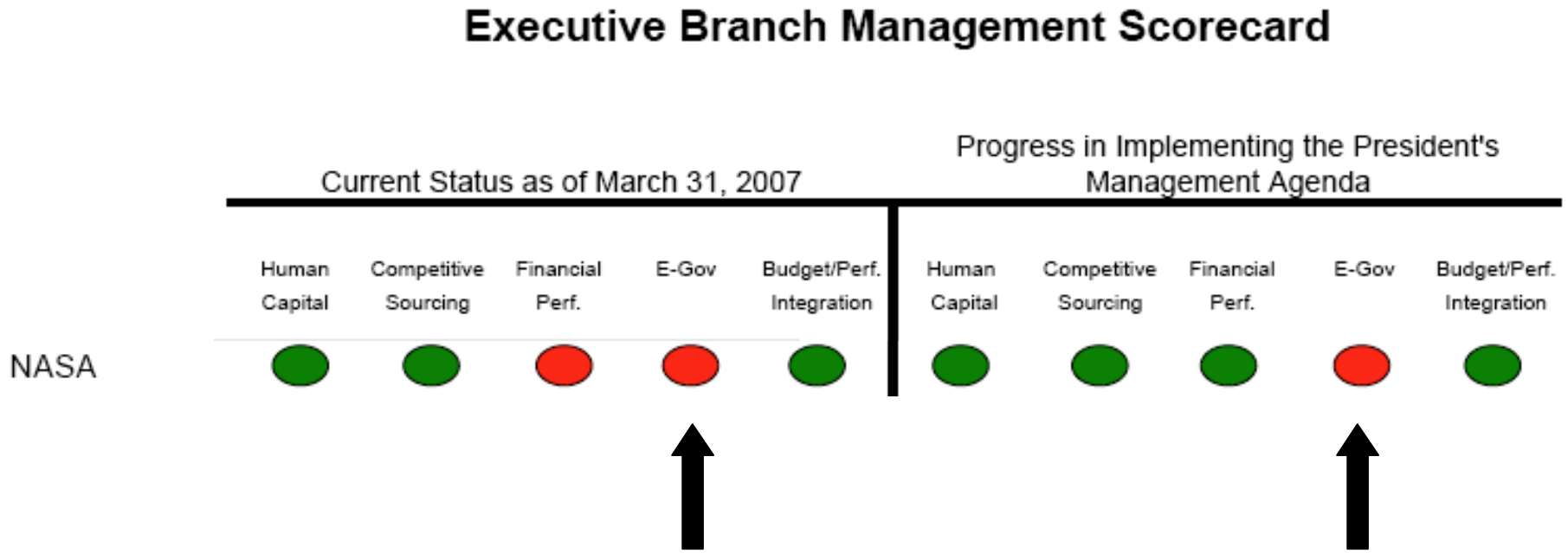
Mission IT and Institutional IT and the Role of the CIO



NASA Scoring in the PMA

The Presidents Management Agenda (PMA)

http://www.whitehouse.gov/results/agenda/fy07q2_scorecard.pdf



Introduction

- After a Mission Focus Review, the Associate Administrator approved the recommendation to consolidate desktop/workstation procurement and support under the Outsourced Desktop Initiative for NASA (ODIN) program.
- Benefits
  - Estimated cost savings to the Agency of approximately $10M.
  - Improved Configuration Management
    - Reduced number of standard software loads for PC and MAC platforms
    - Implementation of a common Setting and Configurations with minimal center overlay including:
      - Operating System Settings
      - IT Security Settings (i.e., Symantec Anti-Virus, Internet Explorer, Windows XP Firewall, etc…)
      - MS Office and other application settings
      - Establishment of OneNASA based standard configuration which would ensure CIS benchmark standardized configuration
    - Reduced Annual Hardware Configurations
  - IT Security
    - Ensures consistent interpretations and implementations of Agency and Federal IT Security Policies
    - Reduced Costs associated with IT Security Plan Consolidation
      - Certification & Accreditation (C&A) Costs (10 to 1 Reduction)
      - Security Plan Maintenance (10 to 1 Reduction)
      - Center Efforts for IT Security Plan Development / Maintenance (10 to 0)
    - Consistent system administration policy restricting the administration rights as appropriate
    - Establishes an IT Security Trust on all ODIN provided devices that is not subject to any center specific trust issues
    - Better and more Rapid Response to potential threats and/or intrusions in a centrally managed environment
  - Alignment with OMB Directives and Guidance
    - Addresses OMB actions (i.e., Karen Evans memo; March 20, 2007)
    - Assists NASA with meeting Executive Order 13423 "Strengthening Federal Environmental, Energy, and Transportation Management"

Scope

- Implementation Plan Intent:
  - All desktops/workstations on NASA networks are purchased and supported under the ODIN contract.
  - Exception requests to be handled using a waiver process to be developed by OCIO.
  - Centers to use OCIO Waiver processes documenting and reporting waivers periodically.

- Definition of ODIN Workstations:
  - General purpose workstation and services provide for overall general purpose computing in support of Center and Agency activities (previously known as Desktop). The computer and all associated services are able to perform general-purpose business and scientific/engineering computing, including standard office automation and desktop productivity enhancement software. Typical usage includes E-mail, web browsing, report preparation, presentation creation, meeting scheduling, spreadsheet generation and general S & E application development and execution.
  - The Workstation has either Windows, MAC, or Unix functionality (previously known as Scientific and Engineering – S&E), and at a minimum, a two processor socket capable system intended for application development and execution of 32 and 64 bit higher performance scientific and engineering programs, making it a top performance system capable of supporting specialized resource intensive applications.

Examples of Non-ODIN systems are those that support -

- On Board Systems/Processors
- CNC Machines
- Oscilloscopes
- Deep Space Network

Overall Strategy

- Issue an Agency ODIN participation policy
  - All NASA Civil Servants and On-site Contractors will be required to obtain all *appropriate* new desktops and workstations from ODIN as of 07/01/2007
  - For existing major mission and program contracts where the contractor currently provides their own desktop support services, this requirement may be waived until contract expiration or the Agency CIO and local CIO deem transition is appropriate
- Develop necessary policy and processes to insure compliance
- Assess the Affected Environment
  - Transition costs of existing systems based on PPBE desktop white paper input
  - Identify Existing Contracts used to procure ODIN-like services/systems.
    - length of contract, number of units purchased, costs, ownership of units
- Develop transition options based on business case assessment
  - Identify quantities and determine ODIN Discount model
  - Each Center's transition plan
- Execute transition plan

GSFC Desktop Management Plan

GSFC Desktop Management

- Director of Code 700 charged Curt Suprock (720) with developing the Desktop Transition Plan, later renamed Desktop Management Plan
  - Plan is due to HQ/CIO on Aug 15
  - Notional Center Transition Timeline for GSFC
    - Sep 1, 2007 - Feb 28, 2009
- Suprock created the Directorate Action Team (DAT) with representatives from each Directorate
  - Phil Webster and Nancy Laubenthal represent SED
  - We rely on ITIRT input

Scope and Goal

- Scope
  - All desktops, laptops and workstations, and associated peripherals, at Greenbelt and Wallops, including, but not limited to, Windows-based, Macintosh, Linux-based and Unix-based systems. The purpose will be to identify what systems are deployed and the best way to support them.
- Goal
  - In cooperation with the user community, complete a plan that develops requirement sets and provides proposed solutions to support the transition

Philosophy

- Center Desktop Transition Plan is seen as an opportunity to address the consistent and effective management of desktop services at the Center. It is not viewed as an "ODIN-mandate" or a "one-size-fits-all" initiative.
- We recognize that:
  - Organization requirements and skill-sets may be unique and require cooperative development of solutions.
  - Quality support is provided throughout the organizations and will jointly develop solutions to retain needed skills and expertise.
  - The CIO has a legal responsibility for the effective management of all IT resources and policy at the Center.

Approach

- A phased approach is being utilized to define the current environment and develop the solution sets to be utilized in the future.
  - Phase 1 – Planning and Preparation
  - Phase 2 – Initial Outreach and Communication
  - Phase 3 – Requirements Set Classification Definition
  - Phase 4 – Requirement Sets Development
  - Phase 5 – System Classification
  - Phase 6 – Solution Sets Development
  - Phase 7 – Plan Integration

Schedule Summary

- Agency CIO has identified August 15, 2007 for completion of Center Transition Plans
- Plan Development
  - Phase 1 – Planning and Preparation: Completed April 11
  - Phase 2 – Initial Outreach and Communication: Completed May 16
  - Phase 3 – Requirements Set Classification Definition: Completed June 11
  - Phase 4 – Requirement Sets Development – July 26
  - Phase 5 – System Classification – September 6
  - Phase 6 – Solution Sets Development – September 13
  - Phase 7 – Plan Integration – October 11
  - Schedule for later phases to be developed in cooperation with Directorate Action Team Leads

Requirements Set Classification

The Requirements Set Classification may be described as “computer centric”, systems are described by 9 major characteristics with 3-4 descriptors each.

Hardware
- Common
- Common with Unique Add-in
- Unique
- State-of-the-art Hardware

Operating System
- Common
- Common with unique configuration
- Common with User System Access Required
- Unique

Software
- Common
- Common with User System Access Required
- Discipline Specific
- Unique

Support Level
- Common
- Common with unique Vendor Support
- Co-located Specialized System Administrator Support

Security
- Low
- Moderate
- High

Funding Profile
- Steady-state
- Variable

Network Accessed Resources
- Common
- Uncommon
- Unique

System Ownership
- NASA - GFE On-site
- NASA - GFE Off-site
- Other Government Agency
- Contractor Owned

Physical Location
- Greenbelt or Wallops
- Other NASA Center
- TDY Users
- Other (specify)

SED ITIRT Activities

SED Requirement Sets

- The ITIRT developed a functional categorization scheme based on the usage of systems. The categories are:
  - Corporate Workstations (Regular and Plus)
  - Stand-alone S&E workstations
  - Clustered S&E workstations
  - Laboratory & Field support
  - Legacy Systems
  - Science Mission Operations
  - Beowulf Clustered Systems
  - SED Servers
- Described these in terms of the Requirements Set Classification
- These became the SED Requirements Sets

Descriptions available at *http://cisto.gsfc.nasa.gov/desktop.html*

Next Steps

- SED Personnel
  - Participate in the System Classification data collection. Web based survey. More information to come.
  - Provide input
    - Email - 600itirt-feedback@lists.nasa.gov
    - Talk to your Division Representatives
- IT Infrastructure Review Team (ITIRT)
  - Conduct System Classification data call
  - Propose Solutions Sets for the Requirements Sets to the Directorate Action Team
    - This is where *we* must *ensure* that the SED *requirements* are met
- Directorate Action Team (DAT)
  - Develop Solutions Sets
  - Formulate Desktop Management Plan
- Director of Code 700
  - Implement the plan

Conceptual overview of 600 systems

Complexity	Low	Medium	High
Examples	Desktops with common hardware and software (Administrative desktop)	Scientific workstations, lab equipment & field experiments	Data center clusters, servers, supercomputers, etc
S/A model	ODIN	Variable	Project provided
Software	ODIN Load	Routine office applications and discipline specific software	Project responsibility
Security Responsibility	ODIN	TBD	Project & 600 IT Council
Security S/W	ODIN	TBD	Project & 600 IT Council
Procurement	ODIN	SEWP, ODIN or other sources as appropriate	SEWP or competitive process
Disposition	Candidate for transfer to ODIN	TBD	Remain in 600

More details on the next slide

Breakout of Medium Systems

Complexity	Medium	Medium	Medium
Examples	S/E workstations stand alone	S/E clustered workstations, possibly clustered with servers	Lab & Field Experiments
S/A model	Requires local S/A	Requires local S/A and expertise	Project provided
S/W Loads	Specialized scientific software	Specialized scientific software and system software	Specialized to lab equipment
Security Responsibility	600 IT council	600 IT council	Project & 600 IT council
Security S/W	TBD	TBD	TBD
Procurement	Unknown at this time	Unknown at this time	SEWP as appropriate
Disposition	Unknown at this time	Unknown at this time	Remain in 600

ITCD Realignment

- Email from Dr. Weiler - July 18th "Improving Information Technology Management at Goddard"
- Directed the Director of ITCD "*to develop a new IT organizational and management structure"*
- Announced the appointment of Dennis Vander Tuig as Transition Manager
- Three functions are to be realigned to Code 700
  - DCSO's and DCSE's
  - Desktop Services Support
  - All Network Infrastructure organizations
- No other details (when? how? who?) have been finalized

Take Away Message

- Big changes are coming in the way IT is managed at NASA and GSFC.
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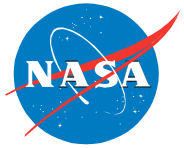

Thanks

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